#### Message

From: Tsui-Bowen, Alethea [Tsui-Bowen.Alethea@epa.gov]

**Sent**: 2/8/2019 7:24:18 PM

**To**: Shewmake, Kenneth [shewmake.kenneth@epa.gov]

Subject: RE: Review/comments on SAP, Lane Plating

Thank you Kenneth. Have a wonderful weekend.

Tks & Rgds, Alethea Tsui-Bowen

From: Shewmake, Kenneth

Sent: Friday, February 08, 2019 1:21 PM

**To:** Tsui-Bowen, Alethea <Tsui-Bowen.Alethea@epa.gov> **Subject:** RE: Review/comments on SAP, Lane Plating

Thank you. I will incorporate this into my comment letter. I will probably request a meeting with EA to discuss some comments. If you have additional comments, we will try to address them at that time.

From: Tsui-Bowen, Alethea

Sent: Friday, February 08, 2019 1:18 PM

To: Shewmake, Kenneth < shewmake.kenneth@epa.gov>

Cc: rmprc <rmprc@epacdx.net>

Subject: Review/comments on SAP, Lane Plating

Hi Kenneth,

Below are my comments on SAP. I haven't finished reviewing the entire document as many pages cover QAQC and SOPs. Let me know if you have questions.

Tks & Rgds, Alethea Tsui-Bowen

# Section 1.1.2 Site Background and History

"The closest residences located approximately 200 to 300 ft. west of.....no daycare facilities....to the facility." Please expand the radius search to at least 1 mile to include all potential sensitive receptors such as senior center, nursing homes, recreation centers, etc.

# Section 1.1.3 Summary of Previous Investigations (Pg 15)

"Liquid waste samples were used to verify if liquids, contained in an unknown number of drums and totes....substances."

Do they have a record of the number of drums and totes on site?

"Hexavalent chromium was reported in 17 grids exceeding the EPA RSL of 6.3 mg/kg.... 167 mg/kg (Grid E7) to 5,620 mg/kg (Grid G7)."

Do they have a map showing all the grids and concentrations and exceedances?

#### Section 1.1.3 Summary of Previous Investigations (Pg 16)

Hexavalent chromium contained soil ranged in concentration from 9.69 mg/kg (Grid H4 at a depth of 18 in.)....to 77.8 mg/kg (E6 at a depth of 6 in.).

Pls be consistent in reporting the grid and depth. "Grid # at a depth of # in. bgs."

#### **Table 2 Data Quality Objectives**

Step 2: Identify the Goals of the Study. Expand analyte list to include organic compounds for a limited number of collected samples to ensure other COPCs do not exist for the site.

Pls provide the list organic compounds.

### Step 3: Identify Information Inputs

During each phase, environmental, geologic, and hydrogeologic information (e.g., soil borings....) will be collected; multimedia samples.....risks to human health and the environment can be assessed.

Pls change risk to human and ecological receptors can be assessed.

If VOCs are identified for the site, soil vapor..... PSG may also be used as a screening tool to delineate... future monitoring wells

What is the future use of the site? If we have no human receptors, do we need indoor air sampling at this stage?

### Step 4: Define the Boundaries of the Study

Pls include a cross-section map for the site to show the lateral and vertical extent of the contaminations.

### Step 5: Develop the Analytic Approach

Pls collect background data for GW, soil, and SW.

### Step 7: Develop the Plan for Obtaining Data

"Groundwater samples will be collected.... Phase I monitoring wells.... Environmental fate and transport modeling, as required in the future."

Pls sample all known onsite and offsite groundwater wells.

"Surface water and sediment samples will be collected to determine impact to...and sediment samples, biota samples may also be collected and analyzed during future RI phases."

Is essay for amphibian growth and mortality being considered?

# Section 2.1 Sampling Process Design

**Groundwater Sampling** 

Pls include sampling at all known GW monitoring wells.

Are the GW samples filtered?

What analytical method is going to be used for PFCs? Screening level?

# Monitoring Well Installation

This paragraph should include monitoring well development. What method is going to be used to develop the wells? What level to install the screen? If PFCs are going to be analyzed, PVC casing cannot be used.

### Soil Investigation

Pls delete ORP which is not applicable to soil investigation.

A designated paragraph for groundwater sampling is missing. Pls add Groundwater Sampling.

# Surface water and sediment sampling

Pls collect background sediment and surface water samples.

# Section 1.1.1 Underground Utilities Survey (Pg 39)

Pls include that contractor will coordinate and contact for utility clearance.

# Section 2.3.1 Ground Water Sampling (Pg 41)

Add this section to Pg 35.

Section 2.3.2.1 Soil Borings.

Appendix A contains the Sampling Design Matrix for soil samples....As indicated on this stable (typo, should be table), the following intervals of surface and subsurface soil will sampled (missing "be") from the soil borings and .....analyses:

Figure 1 Project Organization

Figure needs to be updated due to personnel change such as Walter Helmick who is no longer with EPA R6.

From: Tsui-Bowen, Alethea

Sent: Thursday, February 07, 2019 11:05 AM

To: Shewmake, Kenneth < shewmake.kenneth@epa.gov>

Cc: Rauscher, Jon < Rauscher, Jon@epa.gov>

Subject: Review/comments on Conceptual Site Model Technical Memorandum, Lane Plating

Hi Kenneth,

My review comments on the CSMT. Please let me know if you questions.

CSM (Figure 10) should have current and future receptors. Pls include the surface and subsurface soils depth info. Recreational (fishing and water activities) should be included as one of the receptors.

CSM (Figure 12) Reptiles & Amphibians have complete pathway in direct/dermal contact with surface water. Plants have complete pathway in direct/dermal contact with airborne dust. Animals (burrowing) have complete pathway in soil inhalation (subsurface).

Section 6 Data Gaps. "A subset of samples will also be analyzed for organics....if... COPCs should be expanded." Pls advise the list of organics.

On- and off-site groundwater well data can be used to provide groundwater gradient and flow maps.

Soil Sample Results table are missing footnotes for "Q", "D", "K", "H" etc.

Maps/figures using the data from the Soil Sample Results tables (Pgs 73-156) would be good to provide a better picture of the extent of the soil contamination (lateral and vertical). Maps/figures with exceedances should be provided.

Section 3.1 Surface Features, Paragraph 2, "No daycare facilities..... within 200 feet of the facility." Does it mean within 200 feet radius of the facility? 200 feet is about 0.037 mile which is pretty short. In Phase I investigation, 1 mile radius search is usually done.

Do we have background soil data for the area? Site-specific background soil data?

Do we have prevailing wind data around the site?

Tks & Rgds, Alethea Tsui-Bowen